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S O S SAFETY ON SHIPS

Newsletter of the Safety, Occupational Health and Environmental Programs for ships and ashore

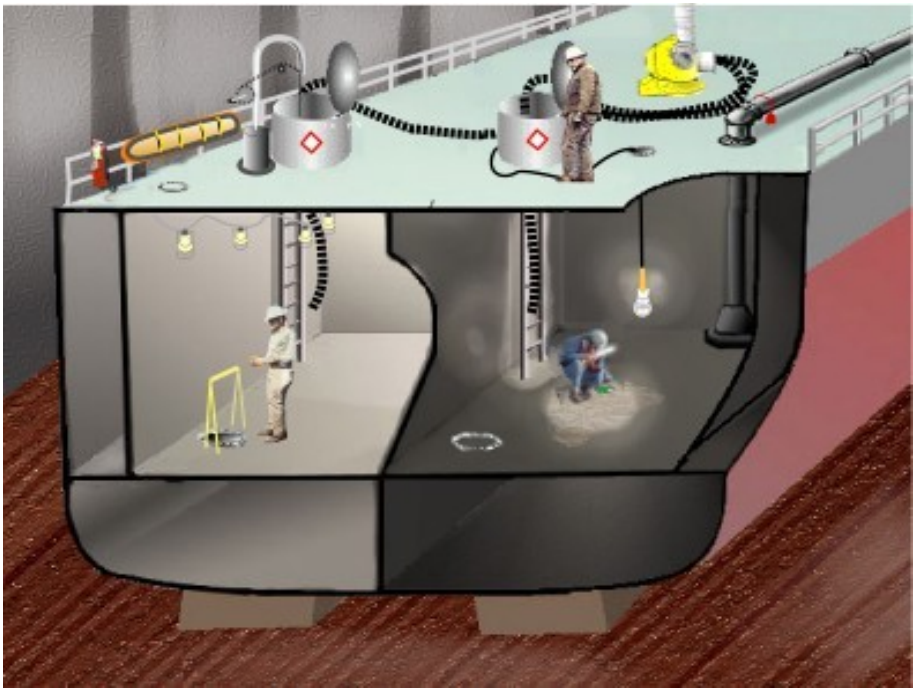
MILITARY SEALIFT COMMAND

Confined Space Entry

A recent survey of its members by the Marine Accident Investigators' International Forum (MAIIF) revealed that there have been at least 101 enclosed space incidents which resulted in 93 deaths and 96 injuries since 1997. These statistics, according to the Marine Accident Investigation Branch (MAIB) of Great Britain, find that accidents from confined space entry continues to be one of the most common causes of work-related fatalities on board ships.

These sobering figures should act as a constant reminder to the mariner that entering or working in untested, improperly ventilated confined spaces may be hazardous to your health or could potentially be deadly. But why do these accidents still occur, even in today's maritime industry where knowledge and training is significantly stressed? Some of the reasons given by MAIB for these accidents include, but are not limited to:

- complacency leading to lapses in standard procedure;
- lack of knowledge or training;
- potentially dangerous spaces not being indentified; and
- would-be rescuers acting on instinct and emotion rather than knowledge and training.



On all MSC owned and operated vessels, the vessel's safety management system should contain standard procedures that delineate entry procedures for all personnel to minimize the risks associated with working in a confined space. On CIVMAR operated vessels, the following SMS Procedures apply for spaces containing hazardous atmospheric conditions:

- 2.1-001-ALL, Confined Space,
- 2.1-020-ALL, Ship's Gas Free Engineer,
- 2.1-021-ALL, Ship's Use of a Certified Marine Chemist

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& Contractor/Shipyard Requirement for Establishing Gas Free Conditions, and,

- Checklist 2.1-001-01, Confined Space Entry Checklist & Permit.

CIVMAR operated vessels are required to conduct annual shipboard refresher training in Gas Free Engineering for all personnel. It is incumbent on the vessel to ensure that all personnel that will be required to enter a confined space are trained to perform all their duties safely. Specifically, personnel should be trained to:

- recognize the characteristics of a confined space;
- anticipate and be aware of hazards that may be faced upon entry;
- recognize adverse health effects that may be caused by exposure to such hazards;
- know what personal protection equipment is needed for safe entry into and exit from the space; and
- proper use of personal protection equipment.

Additionally, each CIVMAR operated vessel in accordance with the Test, Drill Inspection and Training Record is required to conduct an annual Confined Space Rescue Drill. A would-be rescuer entering a confined space and holding his breath for "only a few seconds" is no replacement for a properly trained rescue team and would actually exacerbate an already difficult situation.

MSC shore side personnel that will enter a confined space aboard a vessel are required annually to complete the "Industrial Safety-Confined Space Entry" training and shall follow all the requirements of the vessel's safety management system. No entry shall be made by shore side personnel without the Master's authorization.

IMO Resolution A.864(20), Recommendations for Entering Enclosed Spaces Aboard Ships, defines an enclosed (confined) space as any space characterized by:

- limited openings for entry and exit;
- unfavorable natural ventilation; and
- is not designed for continuous worker occupancy.

Surely we all understand that double bottoms, fuel tanks, ballast tanks, cofferdams, and void spaces, and sewage tanks are hazardous spaces subject to a confined space procedure. But before entering do you stop to think about the ship condition that could affect the atmosphere in spaces such as cargo spaces, spaces next to fuel tanks, pump rooms, compressor rooms, engine crankcases, sea chests, fire side of boilers, steam and mud drums and main condensers?

Whenever working within a confined space the mariner must never forget about the inherent danger of an oxygen-deficient atmosphere. Utilizing precautionary measures and controls, such as conducting a proper risk assessment and following a confined space procedure, will greatly minimize most hazardous conditions.

Recall by Fluke Due to Shock Hazard

Model No. Starting With	Serial No. Starting with	Serial No. Ending In
333	97010000	98880240
334	97010000	98870101
335	97010000	98860104
336	96220000	98900400
337	96070000	98890607

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately unless otherwise instructed.

Name of Product: Fluke Digital Clamp Meters

Units: About 52,000

Manufacturer: Fluke Corp., of Everett, Wash.

Hazard: The meters can fail to give an appropriate voltage reading, resulting in the operator falsely believing the electrical power is off, posing a shock, electrocution, or thermal burn hazard.

Incidents/Injuries: Fluke has received three reports of clamp meters displaying an incorrect voltage reading. No injuries have been reported.

Description: This recall involves Fluke Digital Clamp Meters with model and serial numbers listed in the chart. The model number may be followed by an "A."

Serial numbers that begin with "S" or are followed by "R" are not included in the recall. "Fluke" and the model number are printed on the front of the unit and the serial number on the back. The instrument body is yellow, red, and black. The clamp meters measure 0 to 600 volts alternating current (VAC), 0 to 600 volts direct current (VDC) and 0 to 400, 600 or 1000 amps alternating current.

Sold at: Industrial distributors, electrical wholesalers and some hardware stores nationwide from January 2008 through February 2009 for between $150 and $375.

Manufactured in: China

Remedy: Consumers should stop using these recalled Digital Clamp Meters immediately and contact Fluke for a free replacement clamp meter.

Consumer Contact: For additional information, contact Fluke toll-free at (888) 983-5853 between 7 a.m. and 4 p.m. PT Monday through Friday or visit the firm's website at www.fluke.com/33Xrecall

Safety 1st Quarter FY10

Thank you to the MSC Ships and Crews that continue to report mishaps and near misses!

The pie chart on the following page displays Class C incidents, first aid cases, and near misses for fiscal year 2010 first quarter. Our MSC fleet has had zero class A incidents, zero class B incidents, 16 class C incidents, 65 first aid cases, and reported 8 near misses during FY 2010 first quarter. Near Miss reporting is improving! Keep up the good work. We have experienced an increase in Slips/ Trips/ Falls. MSCHQ will continue to monitor incidents to try to identify trends.

Near Miss Incidents: 8

Slips/Trips/Falls-1 Fires - 1 Material Damage - 1 Collisions - 5

First Aid Incidents: 65

Slips/Trips/Falls – 23	Debris in eye - 1	Exertion - 1
Lifting /Back Injury - 15	Cuts/Knife - 4	Burn - 1
Contact - 10	Pulling - 3	Repetition - 4
Pinch Points - 6	Burn - 1	

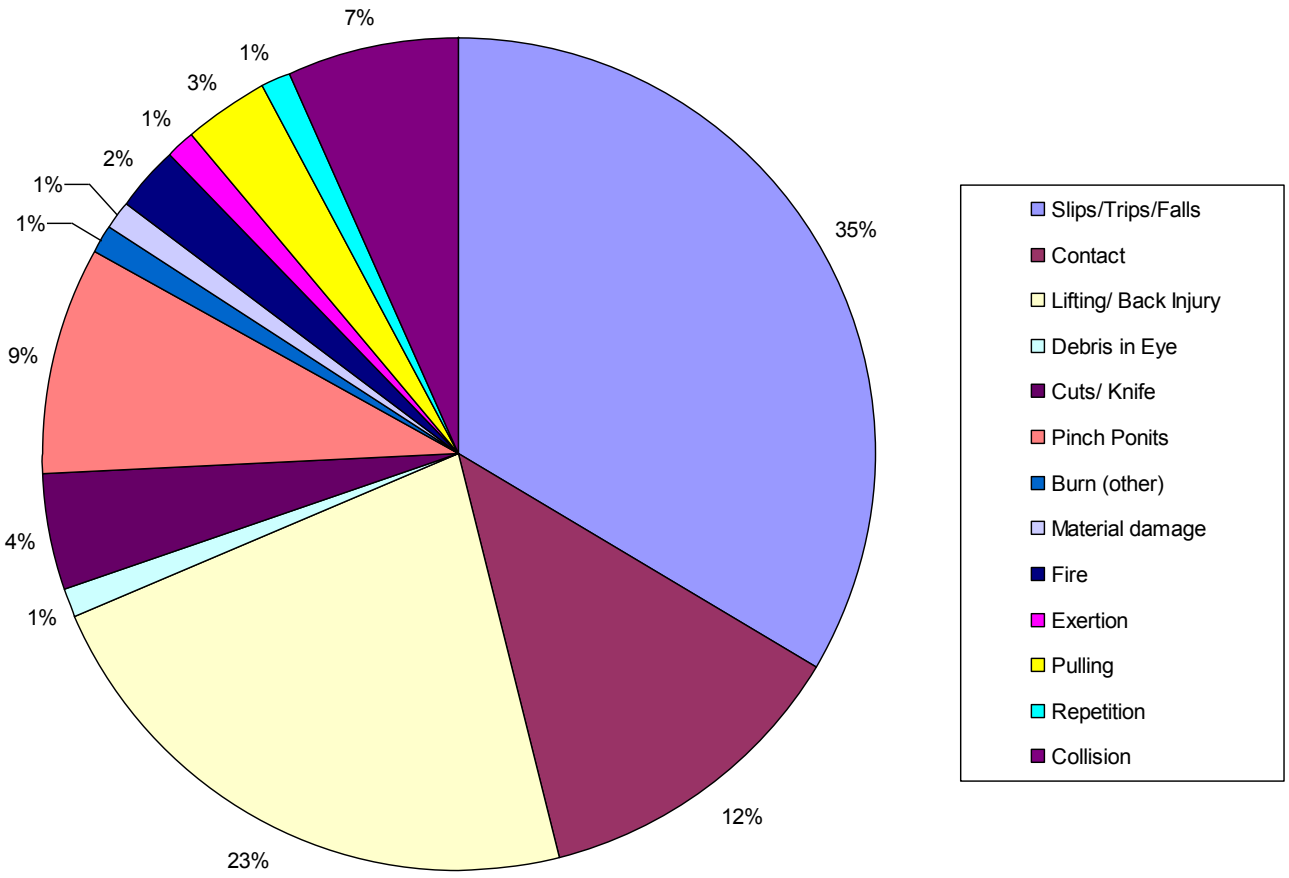
Class C Incidents : 16

Slips/Trips/Falls – 6	Fire - 1
Lifting /Back Injury - 5	Collision - 1
Contact - 1	
Pinch Points - 2	

Totals Incidents: 89

Slips/Trips/Falls – 30	Debris in eye - 1	Material Damage - 1	
Lifting /Back Injury - 20	Cuts/Knife - 4	Pulling - 3	
Contact - 11	Fire - 2	Inhalation - 0	
Pinch Points - 8	Burn - 1	Exertion- 1	Boat Ops - 0
Collision– 6	Repetition -1		

FY2010 1st Quarter Class C Mishaps,



The above pie chart shows the Class C, Near Miss and First Aid Cases for the first quarter of FY2010. Slip/ Trips/ and Falls and lifting injuries have increased in the first quarter of FY2010. Lost time injuries are slightly lower then the first quarter of FY2009, and no Class A or Class B incidents have occurred. Got an idea to help prevent injuries? Please send it to the safety mailbox (MSCHQ_Safety@navy.mil) and we will share it with the fleet.

Safety Suggestions

Do you have a suggestion to share with the fleet? Send it into the safety mailbox (MSCHQ_safety@navy.mil)

From USNS YUKON:

After reporting in Jan. of 2009, our Deck Dept. had started a big preservation effort that required a lot of chipping, and grinding which generated a lot of airborne particles. Even with the proper safety goggles, crew members were still getting paint chips, metal particles and an occasional splinter, on the average of 2-3 per month. Fortunately no one ever required hospitalization or got an infection, but it was frustrating as a supervisor that though we were getting the best safety eyewear for the crew, eye injuries were still occurring.

Adopting a suggestion from Cascade General Shipyard, we required everyone to use a Clear Safety Shield in addition to approved safety eyewear. Our eye injury incidents went to zero ever since. I would highly suggest making a clear safety shield over approved protective eyewear the fleet wide standard for cutting, chipping, grinding or any activity generating airborne particle debris.

From USNS YUKON / MSFSC Safety Specialists:

Safety yellow paint was removed from the paint ordering list two years ago. However, due to fleet feedback including an SMS finding report, it will be added to the list with the next paint contract. In the interim safety yellow paint can be ordered by putting AMERSHIELD, YE-3 OSHA Safety Yellow in the product column and quantity requested by gallon. Safety yellow paint is used to make tripping hazards, head bumping hazards, and top and bottom steps stand out. Do not use safety yellow for stack striping or DFM tanks.

From USNS JOHN LENTHALL:

Recently on a T-AO, two flight deck safety net wire rope pendants were found to have broken and cracked swage fittings. I recommend that all MSC vessels inspect all swage fittings for visible signs of cracking and replace as necessary. Swage fittings should be made of CRES (corrosion-resistant steel) and safety net static weight tests should be up to date.

Note from MSCHQ:

The Oil Companies International Marine Forum (OCIMF) issued the report "Risk Assessment of Emergency Tow-Off Pennants Systems (ETOPS) Onboard Tank Vessels" in October 2009. ETOPS is another name for fire wire.

In response, MSC has adopted the OCIMF's position and CIVMAR operated vessels are hereby authorized to discontinue the use of fire wires. However, if marine terminals/port authorities or the discretion of the master requires ETOPS, then a suitable mooring line will be used in place of wire rope. For more information visit: http://www.ocimf.com/view_document.cfm?id=1316.

Saving a Life Is as Easy as A-E-D

In the time it takes you to read this information, Sudden Cardiac Arrest (SCA) will have claimed another victim. Statistics show that more than 300,000 Americans die of SCA every year. Up to 50,000 of these deaths could have been prevented if someone on scene had initiated the Cardiac Chain of Survival and an automated external defibrillator (AED) had been available for immediate use at the time of the emergency.

The American Red Cross has a vision of one person in every household being trained in First Aid and CPR lifesaving skills and all Americans being within four minutes of an AED with someone trained to use it in the event of sudden cardiac arrest. To help meet its mission of saving lives, the Red Cross has formed relationships with 4 AED manufacturers (Cardiac Science, Philips Health Care Group, Physio-Control, a division of Medtronic, and ZOLL Medical Corporation) to facilitate the purchase of AED devices for customers.

All American Red Cross Adult and Child CPR courses contain defibrillation skills and information. We invite you to learn more about the training and technology that could save the life of a co-worker, family member or a friend by contacting your local American Red Cross chapter.

Read the AED Frequently Asked Questions on the Red Cross website (www.redcross.org) for more information.

From: redcross.org

ENVIRONMENTAL

Environmental Issues Newsletter EIN: 228
27 JAN 2010 LOW SULFUR FUEL

References

(a) CNO letter Ser 09/5U300815 dated 25 Feb 1985

(b) Title 13 California Code of Regulations, Section 2299.2

(c) Title 17 California Code of Regulations, Section 93118.2

(d) MARPOL 73/78 Annex VI Regulations for the Prevention of Air Pollution from Ships

(e) European Union Directive 1999/32/EC dated 6 Jul 2005

(f) European Union Directive 2005/33/EC dated 6 Jul 2005

(g) COMSC WASHINGTON DC ALMSC 020/06 081825Z Aug 06, Sovereign Immunity

Guidance for MSC Masters

1. The purpose of this EIN is to provide information on current California State, International, and European Union (EU) regulations limiting the sulfur content in marine diesel fuel and to provide sources of further information.

2. Reference (a) directs MSC to adhere to and use the practices and procedures of the commercial merchant marine industry. In accordance with this direction, it is MSC policy to voluntarily comply with pollution prevention regulations which would be applicable to commercial, U.S. flagged merchant vessels in so far as is reasonable and practicable without compromising the operations or operating capabilities of the ship.

3. References (b) and (c) contain California state regulations, which entered into force on 1 Jul 2009 and limit the maximum sulfur content of marine diesel allowed to be burned in auxiliary diesel engines, main engines and auxiliary boilers of ships when operating within California waters and 24 nautical miles of the California coast. The limits are a maximum of 1.5% sulfur by weight for marine gas oil (MGO) and 0.5% for marine diesel oil (MDO). Effective 1 Jan 2012 those limits will be reduced to 0.1% sulfur for both MGO and MDO.

4. The California regulations contain an exemption for vessels owned or operated by any branch of the federal government, when such vessels are operated on government noncommercial service. However, such vessels are encouraged to act in a manner consistent, so far as is reasonable and practicable, with the regulations.

5. Reference (d) contains international regulations on the prevention of air pollution from ships. Regulation 14 contains a global cap of 4.5% by weight sulfur content for any fuel oil used on board ships. Effective 1 Jan 2012 that limit will be reduced to 3.5% and effective 1 Jan 2020 that limit will be further reduced to 0.5%.

6. Regulation 14 also contains a cap on the sulfur content of any fuel used on board ships when operating in an Emission Control Area of 1.5%. Effective 1 Jul 2010 that limit will be reduced to 1% and on 1 Jul 2015 that limit will be further reduced to 0.1%. Current Sulphur Oxide Emmision Control Areas (SECAs) in effect, the Baltic Sea and the North Sea, will become known as Emission Control Areas upon the entry into force of revised reference (d) on 1 Jul 2010. The geographic boundaries of these areas can be found in MARPOL 73/78 Annex I and Annex V, in MSC's Environmental Issues Newsletter 220 dated 12 Mar 2008 on the MSC website, or upon request from the POC listed in this message.

7. Article 3 of reference (d) contains an exemption for naval auxiliaries, however parties (countries) shall ensure by the adoption of appropriate measures which do not impair the operations or operational capability of the ships, that it's naval auxiliaries act in a manner consistent, so far as is reasonable and practicable, with the regulations.

8. References (e) and (f) contain EU regulations limiting the maximum sulfur content of heavy fuel oil used within the territories of the EU member countries, the maximum sulfur content of marine fuels used in SECAs, and the maximum sulfur content of marine fuels used by ships at berth in EU member country ports. Current SECAs are the Baltic Sea and the North Sea; see paragraph 6 above.

9. The current maximum sulfur content of heavy fuel, in effect since 1 Jan 2003, is not to exceed 1% by weight. The maximum limit on sulfur content of marine fuels used in SECAs is the same as MARPOL Regulation 14 stated above in paragraph 6. As of 1 Jan 2010, the maximum sulfur content of marine fuels used by ships at berth in EU member country ports is 0.1% by weight.

10. References (e) and (f) contain an exemption for fuels used by warships and other vessels on military service. However, countries shall endeavor to ensure by the adoption of appropriate measures which do not impair the operations or operational capability of the ships, that these ships act in a manner consistent, so far as is reasonable and practicable, with the regulations.

11. The above regulations contain various documentation requirements for vessels which will be covered by separate correspondence.

12. Guidance on requests to inspect MSC vessels by local or state officials is found in reference (g). As found in paragraphs 8 and 9 of that message, Federal public vessels are entitled to claim the immunity of the Federal Government from state laws and are not subject to boarding or inspection by state authorities. While this is the general rule, there are special circumstances in which information and limited access to Navy vessels is provided to state authorities. Because of this, reference (g) requests Masters to coordinate requests for information or access to MSC vessels by state authorities with their local SEALOG.

13. Additional information on the above regulations can be found at the following sources. For California state regulations refer to California Air Resources website at http://www.arb.ca.gov/ports/marinevess/marinevess.htm and California Code of Regulations at http://www.oal.ca.gov/. For MARPOL regulations refer to the text of MARPOL Annex VI and International Maritime Organization website at http://www.imo.org/home.asp. For EU strategy to reduce atmospheric emissions from ships refer to http://europa.eu/legislation_summaries/environment/air_pollution/l28131_en.htm and links to text of EU Directives. For a summary of California and EU regulations refer to American Bureau of Shipping website www.eagle.org.; log in to ABS Eagle, go to the "Resources" area, select "Regulatory Information", then "Low Sulphur Fuels".

14. MSCHQ point of contact for this issue is N732, Jim Fernan, james.b.fernan@navy.mil, 202 685 5764.

Namesake Section

T-AKE 6 USNS AMELIA EARHART Honoring the noted American aviation pioneer and author who was the first woman to receive the Distinguished Flying Cross, for being the first aviatrix to fly solo across the Atlantic Ocean. She set many other records, wrote best-selling books about her flying experiences and was instrumental in the formation of The Ninety-Nines, an organization for female pilots. Earhart joined the faculty of the world-famous Purdue University aviation department in 1935 as a visiting faculty member to counsel women on careers and help inspire others with her love for aviation. She was also a member of the National Woman's Party, and an early supporter of the Equal Rights Amendment. During an attempt to make a circumnavigational flight of the globe in 1937 in a Purdue-funded Lockheed L-10 Electra, Earhart disappeared over the central Pacific Ocean near Howland Island.

T-AKR 313 USNS RED CLOUD Honoring Corporal Mitchell Red Cloud, of Company E, who was in a position on the point of a ridge immediately in front of the company command post. He was the first to detect the approach of the Chinese Communist forces and give the alarm as the enemy charged from a brush-covered area less than 100 feet from him. Springing up, he delivered devastating pointblank automatic rifle fire into the advancing enemy. His accurate and intense fire checked this assault and gained time for the company to consolidate its defense. With utter fearlessness he maintained his firing position until severely wounded by enemy fire. Refusing assistance he pulled himself to his feet and, wrapping his arm around a tree, continued his deadly fire again, until he was fatally wounded. This heroic act stopped the enemy from overrunning his company's position and gained time for reorganization and evacuation of the wounded. Cpl. Red Cloud received the Metal of Honor for his service during the Korean War.

T-AKR 298 USNS GILLILAND Honoring Corporal Charles L. Gilliland, a member of Company I during the Korean War. Corporal Gilliland had a numerically superior hostile force launch a coordinated assault against his company perimeter, the brunt of which was directed up a defile covered by his automatic rifle. His assistant was killed by enemy fire but Cpl. Gilliland, facing the full force of the assault, poured a steady fire into the foe which stemmed the onslaught. When two enemy soldiers escaped his raking fire and infiltrated the sector, he leaped from his foxhole, overtook and killed them both with his pistol. Sustaining a serious head wound in this daring exploit, he refused medical attention and returned to his emplacement to continue his defense of the vital defile. His unit was ordered back to new defensive positions but Cpl. Gilliland volunteered to remain to cover the withdrawal and hold the enemy at bay. Cpl. Gilliland received the Medal of Honor.

Recent Incidents

During testing of a boat and davit, the boat was raised and slewed outboard. A brake mechanism failed and the boat fell 40 feet.

Causal Factors – The brake mechanism failure is being investigated.

Lessons Learned – To be determined from investigation.

CIVMAR was replacing a fallen tag from the back of forklift during cargo operations. The forklift operator did not know the CIVMAR was behind him and backed over the CIVMAR's foot.

Causal Factors – Forklift operator did not look before backing.

Lessons Learned – Though the forklift driver did not look prior to backing, the CIVMAR should have made his intentions clear to all involved in the operation

While CIVMAR was chipping paint a paint chip flew in CIVMAR's eye. CIVMAR was wearing safety glasses and a face shield.

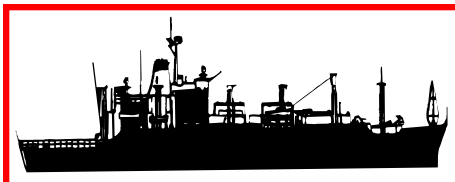
Causal Factors – Improper PPE

Lessons Learned – While chipping paint outdoors, Debris can enter eyes from any direction. Goggles provide greater protection then safety glasses.

While in a shipyard, shipyard workers wiped down all surfaces including ladders, leaving a slick residue. CIVMAR descended the ladder, slipped and fell.

Causal Factors – Residue left on ladders

Lessons Learned – Prior to this incident, it was discussed with the shipyard not to leave any residue on surfaces where people walk. Shipyard workers need to be double checked to ensure they are observing safety precautions. Safety is everyone's responsibility.



While transferring paint thinner from one drum to another, using a diaphragm pump, the transfer hose fell out of the receiving drum causing some splashed thinner to get in the CIVMAR's eye.

Causal Factors – Diaphragm pump hose fell out of drum.

Lessons Learned – PPE must be worn during paint preparation, application and clean up.

CIVMAR slipped and fell backwards about 3 feet while working on a generator.

Causal Factors – Potential hazards were not mitigated.

Lessons Learned – Potential fall hazards need to be mitigated with PPE such as fall protection or guards to prevent or cover fall hazards.

Readiness Through Safety !

This Date in History

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01 March 1694 - **HMS SUSSEX** was an 80-gun ship of the English Royal Navy lost in a severe storm off Gibraltar. On board were possibly 10 tons of gold coins. This could now be worth more than $500 million, making it one of the most valuable wrecks ever. HMS SUSSEX set sail from Portsmouth on 27 December 1693, escorting a fleet of 48 warships and 166 merchant ships to the Mediterranean. On 27 February a violent storm hit the flotilla near the Strait of Gibraltar and in the early morning of the third day, HMS SUSSEX sank. All but two of the 500 crew onboard drowned. Besides HMS SUSSEX, 12 other ships of the fleet sank. There were approximately 1,200 casualties in total, in what remains one of the worst disasters in the history of the Royal Navy.

15 February 1898 - **USS MAINE**. In January 1898, the MAINE was sent from Key West, Florida, to Havana, Cuba, to protect U.S. interests during a time of local insurrection and civil disturbances. Three weeks later an explosion on board the MAINE occurred in Havana Harbor. Later investigations revealed that more than 5 long tons of powder charges for the vessel's guns had detonated, virtually obliterating the forward third of the ship. The remaining wreckage rapidly settled to the bottom of the harbor. Most of the MAINE's crew were sleeping or resting in the enlisted quarters in the forward part of the ship when the explosion occurred. Two hundred and sixty-six men lost their lives as a result of the explosion or shortly thereafter, and eight more died later from injuries. Captain Charles Sigsbee and most of the officers survived because their quarters were in the aft portion of the ship. Altogether, there were only 89 survivors. On 28 March, the US Naval Court of Inquiry in Key West declared that a naval mine caused the explosion. The explosion was a precipitating cause of the Spanish-American War that began in April 1898. Advocates of the war used the rallying cry, "Remember the *Maine!"*

27 March 1971 - **S.S. TEXACO OKLAHOMA** was loaded with approximately 220,000 barrels of black oil in a storm about 120 miles northeast of Cape Hatteras, North Carolina. AT 0330 the vessel split in two and the forward section sank killing 13 crew members. The crew members of the stern section attempted to attract passing ships by firing flares and operating the portable lifeboat radio transmitter for at least 12 hours. However it is believed the "dummie antenna" which prevents the distress signal from being transmitted was not removed. At 0600 the stern section sank. About 10 hours later a merchant vessel discovered the liftraft and rescued 11 survivors. The ensuing search and rescue operation found two more crew members who had been in the water about 32 hours. Thirty one of the 44 crewmembers perished in this casualty.